

# **TELEM-DI24-T digital input RTU module**



The TELEM family RTU module TELEM-DI24-T with 24 digital inputs is used for acquisition digital signals or counter pulses. Module bases on 32-bit ARM CPU. Interfaces to other equipment are RS-232 or RS-422/485. Data exchange protocol IEC 60870-5-101. Time synchronization is possible with synchronization pulse through Telem-AGC device and over protocol.

#### **Features**

- Time synchronization with 1 ms accuracy
- Each input has buffer for 20 time-tagged events
- Debouncing and chatter input filters
- Logical operations with inputs
- Leased line or dial-up mode operation, data GSM communication request by event in substation or by remote control center
- Configuration/parameter setting with IEC protocol at the same line with data communication
- Daisy-chain master-slave connection for up to 15 modules using RS- 422 interface
- Onboard knife disconnectors for digital inputs

#### **Technical data**

Number of digital inputs	24
Indication	1 for every input, 1 for running indication, 1 for alert indication
Built in clock with backup capacitor	Yes

### **Power requirements**

Supply voltage	972 V DC, 1 W
Isolated input circuit voltage (dry contacts)	12140V DC, 8 W @48 VDC
External voltage for isolated input signal circuits (wet contacts)	80-140 VDC with any polarity (V2 contacts must be bridged)
Input circuit isolation voltage to supply	2,5 kV RMS

#### Installation, terminals and environment

Weight	495 g
Mounting	DIN 35
Dimensions (WxHxD)	250 x 125 x 60
Terminals for signal	MVSTBWA 2,5/4-ST
Terminal for power	MVSTBWA 2,5/4-ST
Terminal for communication	RJ4/4 (RS232); RJ12 (RS422)
Over voltage protection	IEC-60255-4, 5 kV pulse protection IEC-60255-5, 2 kV DC on
Disturbance	IEC-61000-3-2, 61000-6-2, 6100-6-4
Ambient temperature in operation	-30+70°C

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# Configuration

Configuration of TELEM-DI24-T is configured using **TELEM-GWS** software. All 24 digital inputs are configured independently.

# Communication port's configurable parameters and general settings

Link and ASDU address for IEC 60870-5-101	115 by DIP switches
Communication speed	20038400 bps
Parity	None, Even, Odd
Object's base address	065500

# Configuration parameters for digital inputs

#### General

In use	Yes/No
Single- or double signal or counter input	Single/Double/Counter
Time tagged	Yes/No

# **Debouncing filter**

Tolerant phase (A period of time during which changes of state are permitted and ignored on a digital input signal)	1255 ms
Intolerant phase (A period of time during which the state of a digital input must remain constant)	1255 ms

# **Chatter filter**

A facility that is used to disable a digital input point if the number of state changes of that point

Chattar times (changes)	1255 times
Chatter times (changes)	1255 times
Filter base period (time interval)	032000 ms
Lock-out period multiplier (number of filter base periods while the chatter filter will remain ON)	1255 periods
during a defined time interval is excessively high.	

#### Counter

Number of pulses for creating an event	1255 pulses

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